AUG 1 0 2001 65

## SEQUENCE LISTING

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Hauptmann, Rudolph Himmler, Adolph Maurer-Fogy, Ingrid Stratowa, Christian

<120> TNF Receptors, TNF Binding Proteins and DNAs Coding for Them

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<140> 09/898,234

<141> 2001-07-03

<150> 09/525,998

<151> 2000-03-15

<150> 08/383,676

<151> 1995-02-01

<150> 08/153,287

<151> 1993-11-17

<150> 07/821,750

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<222> (88)..(120)

<223> Portion of TNF-BP pro protein cleaved by extracellular proteases following secretion.

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<223> Portion of TNF-BP pro protein cleaved by
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50 55 60

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
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Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
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Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu 145 150 156 160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu 165 170 175

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Phe	Thr	Ala	Ser	Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	
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		J				
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Arg Asp Thr Va	l Cys Gly 85	Cys Arg	Lys Asn 90	Gln Tyr Arg	His Tyr 95	Trp
Ser Glu Asn Le		Cys Phe	Asn Cys 1	Ser Leu Cys	Leu Asn 110	Gly
Thr Val His Le	u Ser Cys	Gln Glu 120	Lys Gln	Asn Thr Val 125	Cys Thr	Cys
His Ala Gly Ph 130	e Phe Leu	Arg Glu 135	Asn Glu	Cys Val Ser 140	Cys Ser	Asn
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aatgggcgag	tgagaggco	ca tagct	gtctg gc		c ctc tcc Leu Ser			233
gac ctg ctg Asp Leu Leu 10								281
ccc tca ggg Pro Ser Gly 25								329
aga gat agt Arg Asp Ser 40					His Pro			377
tcg att tgc Ser Ile Cys	_				_		-	425
tgt cca ggc Cys Pro Gly				Cys Ar				473
tcc ttc acc Ser Phe Thr 90								521
aaa tgc cga Lys Cys Arg 105								569
gac cgg gac Asp Arg Asp 120					d Gln Tyr			617
tgg agt gaa Trp Ser Glu								665
ggg acc gtg Gly Thr Val				Lys Gl				713
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		gtt Val														857
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	_	tat Tyr	_							-					_	953
		aaa Lys 250														1001
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Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
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Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp 65 70 75 80

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
85 90 95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg 115 120 125

Lys Asn Gln Tyr Arg His Tyr Trp Set Glu Asn Leu Phe Gln Cys Phe 130 140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
145 150 155 160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu 165 170 175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Ser Leu Glu Cys Thr 180 185 190

Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser 195 200 205

Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu 210 215 220

Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys 225 230 235 240

Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Set Thr Pro Glu Lys Glu 245 250 255

Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser 260 265 270

Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val

275 280 285 Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys 295 290 Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly 310 315 Ala Asp Pro Ile Leu Ala Thr\Ala Leu Ala Ser Asp Pro Ile Pro Asn 325 330 Pro Leu Gln Lys Trp Glu Asp \$er Ala His Lys Pro Gln Ser Leu Asp 340 345 Thr Asp Asp Pro Ala Thr Leu Tyk Ala Val Val Glu Asn Val Pro Pro 360 365 Leu Arg Trp 370 <210> 13 <211> 6414 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: pADCMV1 vector <220> <221> unsure <222> (344) <223> "n" can be a, g, c, or t <220> <221> unsure <222> (4157) <223> "n" can be a, g, c, or t <220> <221> unsure <222> (5135) <223> "n" can be a, g, c, or t <220> <221> unsure <222> (6255) <223> "n" can be a, g, c, or t <400> 13 tcgacattga ttattgacta gttattaata gtaatcaatt acgggggtcat tagttcatag 60 cccatatatg gagttccgcg ttacataact tacggtaaat ggcccgcctc gctgaccgcc 120 caacgacccc cgcccattga cgtcaataat gacgtatgtt cccatagtaa cgccaatagg 180

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	gag aag agg Glu Lys Arg 40			
	aat aat tcc Asn Asn Ser 55			
 	agt gac tgt Ser Asp Cys 70	_		
	aaa ggc acc Lys Gly Thr	_		
	tgc aag aca Cys Lys Thr			
	aaa gct gac Lys Ala Asp 120			
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 	tgt aac tgc Cys Asn Cys			
	tgc agc cac Cys Ser His			
 •	cca gtt gca Pro Val Ala 200	- 1	_	-
 	ttg cct ctg Leu Pro Leu 215	-		_

											cga Arg 235				961
											tca Ser				1009
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											ccc Pro				1105
_				_		_		١.	_		agt Ser				1153
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											ctc Leu				1249
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											cct Pro				1345
_			_								aag Lys				1393
	-		-	_							ttg Leu 395		_	_	1441
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-	_		_	_			_	_	_	_	gta Val			_	 1537
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cta	gaa	agc	cct	gcc	cac	tcg	tcc	acg	acc	cac	cfc	ccg	cga	taa	1630

Leu Glu Ser Pro Ala His Ser Ser Thr Thr His Leu Pro Arg
450 455 460

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35 40 45

Tyr Ala His Pro Lys Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
50 55 60

Gly Thr Tyr Leu Val Ser Asp Cys Pro Ser Pro Gly Gln Glu Thr Val 65 70 75 80

Cys Glu Leu Ser His Lys Gly Thr Phe Thr Ala Ser Gln Asn His Val 85 90 95

Arg Gln Cys Leu Ser Cys Lys Thr Cys Arg Lys\Glu Met Phe Gln Val
100 105 110

Glu Ile Ser Pro Cys Lys Ala Asp Met Asp Thr val Cys Gly Cys Lys
115 120 125

Lys Asn Gln 130	Phe Gln	Arg Tyr	Leu	Ser	Glu	Thr	His 140	Phe	Gln	Cys	Val
Asp Cys Ser 145	Pro Cys	Phe Asn 150	Gly	Thr	Val	Thr 155	Ile	Pro	Cys	Lys	Glu 160
Lys Gln Asn	Thr Val 165	Cys Asn	Cys	His	Ala 170	Gly	Phe	Phe	Leu	Ser 175	Gly
Asn Glu Cys	Thr Pro 180	Cys Ser	His	Cys 185	Lys	Lys	Asn	Gln	Glu 190	Cys	Met
Lys Leu Cys 195	Leu Pro	Pro Val	Ala 200	Asn	Val	Thr	Asn	Pro 205	Gln	Asp	Ser
Gly Thr Ala 210	Val Leu	Leu Pro 215	Leu	Val	Ile	Phe	Leu 220	Gly	Leu	Cys	Leu
Leu Phe Phe 225	Ile Cys	Ile Ser 230	Leu	Цеи	Cys	Arg 235	Tyr	Pro	Gln	Trp	Arg 240
Pro Arg Val	Tyr Ser 245	Ile Ile	Cys	Ard	Asp 250	Ser	Ala	Pro	Val	Lys 255	Glu
Val Glu Gly	Glu Gly 260	Ile Val	Thr	Lys 265	Pro	Leu	Thr	Pro	Ala 270	Ser	Ile
Pro Ala Phe 275	Ser Pro	Asn Pro	Gly 280	Phe	Asn	Pro	Thr	Leu 285	Gly	Phe	Ser
Thr Thr Pro 290	Arg Phe	Ser His 295	Pro	Val	Ser	Ser	Thr 300	Pro	Ile	Ser	Pro
Val Phe Gly 305	Pro Ser	Asn Trp 310	His	Asn	Phe	Val 315	Pro	Pro	Val	Arg	Glu 320
Val Val Pro	Thr Gln 325	Gly Ala	Asp	Pro	Leu 330	Leu	Tyr	Gly	Ser	Leu 335	Asn
Pro Val Pro	Ile Pro 340	Ala Pro	Val	Arg 345	Lys	Trb	Glu	Asp	Val 350	Val	Ala
Ala Gln Pro 355	Gln Arg	Leu Asp	Thr 360	Ala	Asp	Pro	Ala	Met 365	Leu	Tyr	Ala
Val Val Asp 370	Gly Val	Pro Pro 375	Thr	Arg	Trp	Lys	Glu 380	Phe	Met	Arg	Leu
Leu Gly Leu 385	Ser Glu	His Glu 390	Ile	Glu	Arg	Leu 395	\$lu	Leu	Gln	Asn	Gly 400
Arg Cys Leu	Arg Glu 405	Ala His	Tyr	Ser	Met 410	Leu	Glu	Ala	Trp	Arg 415	Arg
Arg Thr Pro	Arg His 420	Glu Ala	Thr	Leu 425	Asp	Val	Va	Gly	Arg 430	Val	Leu

Cys Asp Met Asn Leu Arg Gly Cys Leu Glu Asn Ile Arg Glu Thr Leu 435 440 445
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gac ctg ctg ctg cca ctg gtg ctc ctg gag ctg ttg gtg gga ata tac 281 Asp Leu Leu Pro Leu Val Leu Leu Glu Leu Leu Val Gly Ile Tyr 10 15 20
ccc tca ggg gtt att gga ctg gtc cct cac cta ggg gac agg gag aag 329 Pro Ser Gly Val Ile Gly Leu Val Pro His Leu Gly Asp Arg Glu Lys 25 30 35
aga gat agt gtg tgt ccc caa gga aaa tat atc cac cct caa aat aat 377 Arg Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn 40 45 50 55
tcg att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac 425 Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp 60 65 70
tgt cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc 473 Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly 75 80 85
tcc ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc 521 Ser'Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser 90 95 100
aaa tgc cga aag gaa atg ggt cag gtg gag ate tct tct tgc aca gtg 569 Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val

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					tgc Cys						665
					cag Glh						713
					aga Arg 175						761
					tgc Cys						809
					gac Asp						857
-	-				tgc Cys						905
					tgg Trp						953
					aaa Lys 255						1001
					cca Pro						1049
		_		_	ccc Pro		- 1				1097
					gac Asp						1145
_		 _			cag Gln	 -	_				1193
					ccc Pro 335						1241

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agg cgg cgc acg Arg Arg Arg Thr 410					1481
gtg ctc cgc gac Val Leu Arg Asp 425					1529
gcg ctt tgc ggc Ala Leu Cys Gly 440					1577
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His Leu Gly A	Asp Arg Glu	Lys Arg	Asp Ser	Val Cys	Pro Gln 45	Gly Lys
Tyr Ile His 1 50	Pro Gln Asn	Asn Ser 55	Ile Cys	Cys Thr 60	Lys Cys	His Lys
Gly Thr Tyr 1 65	Leu Tyr Asn 70	Asp Cys	Pro Gly	Pro Gly 75	Gln Asp	Thr Asp 80
Cys Arg Glu (	Cys Glu Ser 85	Gly Ser	Phe Thr .	Ala Ser	Glu Asn	His Leu 95
Arg His Cys I	Leu Ser Cys 100	Ser Lys	dys Arg 105	Lys Glu	Met Gly 110	Gln Val
Glu Ile Ser S 115	Ser Cys Thr	Val Asp 120	Arg Asp	Thr Val	Cys Gly 125	Cys Arg
Lys Asn Gln 1 130	Tyr Arg His	Tyr Trp 135	Set Glu	Asn Leu 140	Phe Gln	Cys Phe
Asn Cys Ser 1 145	Leu Cys Leu 150	Asn Gly	l l	His Leu 155	Ser Cys	Gln Glu 160
Lys Gln Asn 1	Thr Val Cys 165	Thr Cys	His Ala	Gly Phe	Phe Leu	Arg Glu 175
Asn Glu Cys 1	Val Ser Cys 180		Cys Lys 185	Lys Ser	Leu Glu 190	Cys Thr
Lys Leu Cys I 195	Leu Pro Gln	Ile Glu 200	Asn Val	Lys Gly	Thr Glu 205	Asp Ser
Gly Thr Thr V 210	Val Leu Leu	Pro Leu 215	Val Ile	Phe Phe 220	Gly Leu	Cys Leu
Leu Ser Leu 1 225	Leu Phe Ile 230	Gly Leu		Arg Tyr 235	Gln Arg	Trp Lys 240
Ser Lys Leu S	Tyr Ser Ile 245	Val Cys	Gly Lys 250	Ser Thr	Pro Glu	Lys Glu 255
Gly Glu Leu (	Glu Gly Thr 260		Lys Pro 265	Leu Ala	Pro Asn 270	Pro Ser
Phe Ser Pro 275	Thr Pro Gly	Phe Thr 280	Pro Thr	Leu Gly	Phe Ser 285	Pro Val

Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys 29 Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly 310 315 Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn 330 Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro 355 360 Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu 375 380 Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln 390 395 Tyr Ser Met Leu Ala Thr Trp Arg Arg Thr Pro Arg Arg Glu Ala 405 Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly 425 Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro 435 440 Pro Ala Pro Ser Leu Leu Arg 450 <210> 18 <211> 13 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: N-terminal amino acid sequence of protein purified from urine (main sequence) <220> <221> UNSURE <222> (4) <223> Identity of "Xaa" could not be determined. <400> 18 Asp Ser Val Xaa Pro Gln Gly Lys Tyr Ile His Prd Gln 10 <210> 19

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<210> 24
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<210> 25
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Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys
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<211> 8
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Gly Xaa Tyr
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<210> 46
<211> 20
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<210> 49 <211> 20 <212> DNA <213> Artificial Sequence	
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<210> 54

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Phe Thr Ala Ser Glu Asn Asn Lys

<210> 55

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<400> 55

Phe Thr Ala Ser Cys Asn Asn Lys 1 5

<210> 56

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30

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<213> Artificial Sequence
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tgc cac aaa gga acc tac ttg tac aat gad tgt cca ggc ccg ggg cag Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln 20 25 30	96
gat acg gac tgc agg gag tgt gag agc ggc tcc ttc aca gcc tca gaa Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu 35 40 45	144
aac aac aag gatcc Asn Asn Lys 50	158

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Cys His Lys Gly Thr Tyr Let Tyr Asn Asp Cys Pro Gly Pro Gly Gln
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Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu
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Asn Asn Lys
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ggtcgacatt gattattgac tag
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